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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,374	07/22/2003	David C. Baese	N9554	7669

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WADDEY & PATTERSON
Bank of America Plaza
414 Union Street, Suite 2020
Nashville, TN 37219

EXAMINER

LU, JIPING

ART UNIT PAPER NUMBER

3749

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SN

Office Action Summary	Application No. 10/624,374	Applicant(s) BAESE ET AL.	
	Examiner Jiping Lu	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-49 is/are pending in the application.
- 4a) Of the above claim(s) 34-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-30 is/are rejected.
- 7) ☒ Claim(s) 31-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I, claims 27-33 in the reply filed on 12/28/2004 is acknowledged. The traversal is on the ground(s) that the method claims 45-49 are very similar in scope to claims 27-33 and it is not believed any additional search should be required to review them. This is not found persuasive because the non-elected claims 45-49 are not co-extensive with elected apparatus claims 27-33. for example, independent claim 45 requires prevention of condensation of combustion products from the burner on an exterior of the heat exchanger. Apparatus claim 27 does not require such limitations. Independent apparatus claim 27 also required a primary heat exchanger and impliedly a secondary heat exchanger, recirculation bypass with recirculation valve. Independent method claim 45 does not. Therefore, the non-elected method claims 45-49 are not co-extensive with the elected apparatus claims 27-33.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 34-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12/28/2004.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Lannes (U. S. Pat. 5,660,165).

Lannes shows a water heater 10 comprising a burner (not shown, see col. 9, line 21), a heat exchanger 32 with water inlet 26 and a water outlet 28, a recirculation conduit 36, 38 communicating the water outlet 28 with the water inlet 26 and bypassing the heat exchanger, a recirculation valve (not shown, see col. 9, lines 25-38) disposed in the recirculation conduit, a water temperature sensor 17 and a controller 19 which are arranged same as claimed.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lannes (U. S. Pat. 5,660,165).

The water heater of Lannes as above includes all that is recited in claims 29-30 except for the selected water temperature. It would have been an obvious matter of design choice to select the water temperature at any desired temperature in order to obtain the optimum result since applicant has not disclosed that the claimed temperature solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in

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the art and it appears that the claimed feature does not distinguish the invention over similar features in the prior art.

Allowable Subject Matter

7. Claims 31-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 12/28/2004 have been fully considered but they are not persuasive to overcome the rejections in view of the unamended broad claims presented. (1) the broad claim 27 merely calls for a heat exchanger with water inlet and water outlet being heated by a burner and a recirculation path with a valve controlled by a temperature responsive controller. This broadly claimed structure is clearly shown by the patent to Lannes. For example, Lannes does show a heat exchanger 32 with fluid inlet 26 and fluid outlet 28 being heated by a burner (not shown, col. 9, line 21) and recirculation path 36, 38 with a valve (not shown, see col. 9, lines 25-38) controlled by a temperature responsive controller 19 with a temperature sensor 17. There is simply no structural and functional differences between the broad claim 27 and the Lannes patent. (2) applicant argued that the heat exchanger 32 of Lannes has no inlet and outlet for water. Lannes only has inlet and outlet for glycol and water mixture. Examiner disagrees with this argument because the Lannes does disclose and suggest that any fluid can be used (see co. 8, line 15). It should be noted that water is fluid. Therefore, the 35 USC 102 rejection

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remains. (3) applicant also argues that Lannes has two completely independent flow paths and no recirculation path. However, the broad claim 27 does not include any limitations in this regard.

Examiner maintains that conduits 36, 38 of Lannes do form a recirculation path same as claimed

in claim 27. (4) applicant further argued that Lannes does not show the heat exchanger 32

exposed to the burner, the heat exchanger does not receive heat from the burner. Examiner does

not agree with this line of reasoning. The heat exchanger 32 is exposed to the burner by heat

radiation and convection through the hot burner tube (not numbered inside the coil 32)). Thus,

the heat generated by the hot burner tube will be absorbed by the coil 32 (by radiation and

convection through the surrounding water). (5) applicant also argues that the claim 27 requires

“an inner flow path” that Lannes does not show. However, the present specification does not

define what the inner flow path” is. According to Fig. 4, there is no structural difference between

an inner flow path or just merely a connector (at 19, 21). Since there is no structural distinction

defined in claim 27, then, Lannes’ patent still readable on this broad claim 27. (6) applicant also

argued that the Lannes does not show “a recirculation conduit communicating the water outlet

with the water inlet and bypassing the heat exchanger”. This is not true. The applicant’s own

disclosure (Figs. 1, 4) showing the recirculation conduit 60 communicating the water outlet 62

with the water inlet 64 and bypassing the heat exchanger 18. Lannes also shows the same

claimed “a recirculation conduit 36, 11, 38 communicating the liquid outlet 26 with the liquid

inlet 28 and bypassing the heat exchanger 32”. There is simply no structural difference between

claim 27 and the Lannes patent. Examiner hereby requests that the applicant to point out exactly

which piece(s) of limitation, if any, is missing from claim 27 that Lannes patent does not show.

(7) applicant argued that the recirculation valve and temperature sensor in claim 27 are not the

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same as the recirculation valve and temperature sensor in Lannes because the valve and the temperature sensor in Lannes function differently. These arguments are without merit because the valve and temperature sensor in Lannes are located in the same position as claimed.

Therefore, they must functioned same as claimed in claim 27. (8) with regard to the claimed prevention of condensation of combustion products, it is a well known practice in the combustion art. The combustion products must be controlled within a certain temperature ranges, e. g. >130 degrees F, prior to discharge to the atmosphere. Therefore, it is the examiner's position that the control of temperature is deemed to be an obvious matter of design choice in order to prevent corrosive condensate accumulations.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

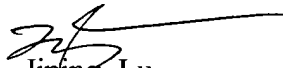
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 571 272-4877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jiping Lu
Primary Examiner
Art Unit 3749

J. L.